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EXAMINER

LIN, SHEW FEN

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/692,549	Applicant(s) MELTON ET AL.	
	Examiner SHEW-FEN LIN	Art Unit 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34, 40 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34, 40-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- a. This action is taken to response to Request for Continued Examination filed on 12/13/2007.
- b. Claims 1-34 and 40-41 are pending. Claims 1, 16, 27, 35, and 40 are independent claims.
- c. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 13, 2007 has been entered.

Claim Objections

Claim 1 recites the limitation "the request including data....data indicating that...., and data indicating a specified genealogical relationship...". It is not clear whether each data is a new instance of data or a reference to the previous data, thus lacks antecedent basis (should be preceded with "said" or "the"). Similar informality exists in claims 16, 27, and 40.

Claim 1 recites the limitation "the specified geological relationship ". The Examiner believes it should be "the specified genealogical relationship". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15, 26, and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 provides for the use of the method according to claim 1, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 26 provides for the use of the method according to claim 16, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Regarding claim 40, the phrase "a specified relationship" renders the claim(s) indefinite because the term "specified" is not defined by the claim and unclear what criteria are satisfied.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 40-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhang et al.

(US Patent Application Publication 2003/0187841, hereinafter Zhang).

As to claim 40, Zhang discloses in a computing environment, a method comprising:

receiving a request for taxonomy-related information with respect to a plurality of computing resources (abstract, paragraph [0005], [0081], [0082], web-based data sources), the request including data corresponding to an origin node within a taxonomy, data indicating that a desire for an expanded result set (Fig. 2, paragraph [0003], [0011], [0017], [0019], [0028], compound query statement, the compound search can be further expanded to allow an aggregate operator to be applied to an individual query), and data indicating a specified relationship with the origin node (paragraph [0072], [0073]);

providing, based on the received request for taxonomy-related information, at least one query for taxonomy-related data with respect to the plurality of computing resources (Figs. 1-2, paragraph [0019], [0036], [0038], [0039], [0073], providing a query format comprising at least one query, each query having a format permitting a plurality of search criteria to be contained in a single query to one of the UDDI registries), the taxonomy-related data corresponding to at least one node having the specified relationship with the origin node (Fig. 2, paragraph [0072], [0073]);

receiving the taxonomy-related data based on the at least one query (Figs. 1, 6, paragraph [0011], [0047], [0048], [0067]); and

returning the expanded result set including the taxonomy-related data in response to the request (Fig. 6, item 610).

As to claim 41, Zhang discloses the method of claim 40, wherein:

the request comprises and XML message (Fig. 1, paragraph [0015], [0037], [0055]), and
returning the expanded result set including the taxonomy-related data further comprises
formatting the response as an XML message (Fig. 1, paragraph [0045]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time

a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US Patent Application Publication 2003/0187841, hereinafter Zhang) in view of Goiffon et al. (US Patent 6,453,312, hereinafter Goiffon).

As to claim 1, Zhang discloses in a computing environment, a method comprising:
receiving a request for information about a Web service (paragraph [0003], [0015]), the request including data corresponding to an origin node within a taxonomy related to the Web service, data indicating that an expanded result set is desired (Fig. 2, paragraph [0003], [0011], [0017], [0019], [0028], compound query statement, the compound search can be further expanded to allow an aggregate operator to be applied to an individual query), and data indicating a specified genealogical relationship with the origin node;

providing, based on the received request for information about the Web service, at least one query for taxonomy-related data with respect to the Web service (Figs. 1-2, paragraph [0019], [0036], [0038], [0039], [0073], providing a query format comprising at least one query, each query having a format permitting a plurality of search criteria to be contained in a single query to one of the UDDI registries), the taxonomy-related data corresponding to at least one node having the specified geological relationship with the origin node;

receiving the taxonomy-related data based on the at least one query (Figs. 1, 6, paragraph [0011], [0047], [0048], [0067]); and

Zhang does not explicit disclose data indicating a specified genealogical relationship with the origin node, the taxonomy-related data corresponding to at least one node having the specified geological relationship with the origin node.

Goiffon discloses data indicating a specified genealogical relationship with the origin node (Fig. 4, col. 4, lines 43-52, The user is also allowed to specify whether the search should be expanded to include parents, children, or siblings of a previously-located concept), the taxonomy-related data corresponding to at least one node having the specified geological relationship with the origin node (Figs. 2-4, col. 7, lines 19-31, col. 14, lines 44-65, an element generically called "Locator Element" forms the root of the hierarchical tree structure, specifying whether parent, sibling, or child concepts will be included for any located concepts. These parameters are specified in Boxes 402, 404, and 406).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify Zhang's disclosure to expand search as taught by Goiffon for the purpose of locating relative services which a hierarchical concept tree is structured (column 1, lines 18-24, Goiffon). The skilled artisan would have been motivated to improve the invention of Zhang per the above such that relevant services/information can be provided to the users (column 1, lines 59-67, column 2, lines 1-2).

Combination of Zhang and Goiffon teach returning the expanded result set including the taxonomy-related data in response to the request (Zhang, Fig. 6, item 610, Goiffon, Figs. 9A-9D, 13).

As to claims 2-11, Zhang discloses the method of claim 1 as noted above but does not explicitly disclose interpreting the request to determine that the request seeks data from at least one ancestor/ descendant / sibling node of the origin node, wherein the request includes a value corresponding to one or more generations of ancestor/ descendant / sibling nodes from which data is being sought.

Goiffon discloses performing query utilizing a hierarchical tree wherein the nodes of the tree describe parent/child/sibling relationship (abstract, Fig. 3). The search word (node) in the hierarchical tree is located by traversal of the tree. Furthermore, the user is allowed to specify to expand the search to include parents, children, or siblings (Fig. 4, column 4, lines 31-34, 43-53). The number of levels of hierarchy to be expanded can be specified (column 14, lines 44-65).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify Zhang's disclosure to expand search as taught by Goiffon for the purpose of locating relative services which a hierarchical concept tree is structured (column 1, lines 18-24, Goiffon). The skilled artisan would have been motivated to improve the invention of Zhang per the above such that relevant services/information can be provided to the users (column 1, lines 59-67, column 2, lines 1-2).

As to claim 12, Zhang discloses the method of claim 1 wherein the request comprises an XML message (Fig. 1, paragraph [0015], [0037], [0055]), and wherein returning the expanded result set including the taxonomy-related data further comprises formatting the response as an XML message (Fig. 1, paragraph [0045]).

As to claim 13, Zhang discloses the method of claim 1 wherein the taxonomy corresponds to a taxonomy maintained at a UDDI server (Fig. 8, paragraph [0082], [0122]).

As to claim 14, Zhang discloses the method of claim 1 wherein the taxonomy corresponds to a taxonomy having device information maintained therein (Fig. 8, paragraph [0082], [0122]).

As to claim 15, is directed to a computer readable storage medium carrying instructions for performing the methods of claim 1 and is rejected along the same rationale.

As to claim 16, Zhang discloses in a computing environment, a method comprising:
receiving a first request for information about a Web service (paragraph [0003], [0015]), the first request including data corresponding to an origin node within a taxonomy related to the Web service (Fig. 2, paragraph [0003], [0011], [0017], [0019], [0028], compound query statement, the compound search can be further expanded to allow an aggregate operator to be applied to an individual query), and data indicating a specified genealogical relationship with the origin node;

constructing, based on the received first request, a at least one second request for taxonomy data related to the Web services service, the at least one second request including data (Fig. 6, paragraph [0043], [0051], parse query request and dispatch query, i.e. at least one second request, see also Goiffon, Fig. 4, col. 10, lines 23-36, expand query [request] based on the hierarchical tree structure, i.e. expand a first request to a second request) corresponding to an

origin node within a taxonomy related to the Web services and data indicating that the at least one second request seeks data with respect to one or more specific nodes that have the specified genealogical relationship with the origin node;

communicating the second request to a server (Figs. 1-2, paragraph [0019], [0036], [0038], [0039], [0073], providing a query format comprising at least one query, each query having a format permitting a plurality of search criteria to be contained in a single query to one of the UDDI registries);

Zhang does not explicit disclose data indicating a specified genealogical relationship with the origin node, data indicating that the at least one second request seeks data with respect to one or more specific nodes that have the specified genealogical relationship with the origin node.

Goiffon discloses data indicating a specified genealogical relationship with the origin node (Fig. 4, col. 4, lines 43-52, The user is also allowed to specify whether the search should be expanded to include parents, children, or siblings of a previously-located concept), data indicating that the at least one second request seeks data with respect to one or more specific nodes that have a the specified genealogical relationship with the origin node (Figs. 2-4, col. 7, lines 19-31, col. 14, lines 44-65, an element generically called "Locator Element" forms the root of the hierarchical tree structure, specifying whether parent, sibling, or child concepts will be included for any located concepts. These parameters are specified in Boxes 402, 404, and 406).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify Zhang's disclosure to expand search as taught by Goiffon for the purpose of locating relative services which a hierarchical concept tree is structured (column 1, lines 18-24, Goiffon). The skilled artisan would have been motivated to improve the invention of Zhang per

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the above such that relevant services/information can be provided to the users (column 1, lines 59-67, column 2, lines 1-2).

Combination of Zhang and Goiffon teach receiving a response including data corresponding to at least one node the one or more specific nodes that have the specified genealogical relationship with the origin node (Zhang, Fig. 6, item 610, Goiffon, Figs. 9A-9D, 13),

As to claims 17-22, recite similar limitations as discussed in claims 2-11 above and therefore rejected along the same rationale.

As to claims 23-25, recite similar limitations as discussed in claims 12-14 above and therefore rejected along the same rationale.

As to claim 26, is directed to a computer readable medium carrying instructions for performing the methods of claim 16 and is rejected along the same rationale.

As to claim 27, is directed to a system claim carrying instructions for performing the methods of claim 1 and is rejected along the same rationale. . Further, Zhang teaches expansion logic (Fig. 1, item 11) including a database to locate data (Fig. 1, item 105, paragraph [0048] UDDI category database, see also Goiffon, Fig. 1, element repository, col. 7, lines 12-13, 19-21, Element Repository 101 contains an Element Inventory 102, The elements stored within Element Inventory 102 are arranged according to hierarchical tree structures).

As to claims 28-30, recite similar limitations as discussed in claims 2-11 above and therefore rejected along the same rationale.

As to claim 31, recite similar limitations as discussed in claim 12 above and therefore rejected along the same rationale. .

As to claim 32, Zhang discloses the system of claim 27 wherein the database is coupled to the expansion logic via a server (Fig. 1).

As to claim 33, Zhang discloses the system of claim 27 wherein the database is accessed through a server, and wherein the expansion logic is incorporated in a middle tier between the client and the server (Fig. 1).

As to claim 34, Zhang discloses the system of claim 27 wherein the client provides the request to the server by calling an application programming interface, the application programming interface formatting the request as a message for communicating with the server (paragraph [0056], [0059]).

Response to Arguments

Applicant's arguments based on newly amended features, “data indicating a specified genealogical relationship with the origin node” with respect to claims 1, 16, and 27 have been

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fully and carefully considered but are moot in view of the new ground(s) of rejection. Refer to the corresponding sections of the claim analysis for details.

Related Prior Arts

The following list of prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Cutlip; Robert R., US 6976027 B2, "Implementing geographical taxonomy within network-accessible service registries using spatial extensions".
- Fratkina, Raya et al., US 20010049688 A1, "System and method for providing an intelligent multi-step dialog with a user".

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shew-Fen Lin whose telephone number is 571-272-2672. The examiner can normally be reached on 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shew-Fen Lin /S. L./
Examiner, Art Unit 2166
July 18, 2008

/Hosain T Alam/

Supervisory Patent Examiner, Art Unit 2166